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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,736	06/25/2001	Petar R. Dvornic	MIC35 P-321	2078

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EXAMINER

MULLIS, JEFFREY C

ART UNIT	PAPER NUMBER
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1711

DATE MAILED: 10/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/888,736

Applicant(s)

DVORNIC ET AL.

Examiner

Jeffrey C. Mullis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5, 12-17 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 12-17 and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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All previous rejections have been withdrawn and the search has now been extended to include all species.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) The invention was described in (1) an application for patent, published under Section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4, 12-16 and 24 are rejected under 35 U.S.C. § 102(e) as being anticipated by Vicari et al. (U.S. 6,114,489).

Vicari et al. disclose "hyperbranched" materials as "crosslinking molecules" at column 14 lines 33-37 having reactive groups such as hydroxyl, carboxy, isocyanate etc. which react with a "polymeric binder" at column 14 lines 46-52. The reactive group is on the ends of the hyperbranched polymer at the

paragraph bridging columns 14 and 15. Molecular weights of hyperbranched polymer are greater than 1200 at column 20, lines 51-55.

Claims 1-5, 12-17 and 24 are rejected under 35 U.S.C. § 102(b) as being anticipated by Herzig et al. (U.S. 5,985,462).

Herzig et al. disclose a "crosslinkable composition" which contains a silicon-hydrogen functional dendromer with applicants' molecular weights based on method of production (see Example 7) which is reacted with an alpha, omega divinyl dimethylpolysiloxane. See column 16 lines 40-66. As the polymer of the second type has vinyl functional groups at the end, it can be said to be a telechelic polymer as in claim 3.

Claims 1-5, 12-17 and 24 are rejected under 35 U.S.C. § 102(b) as being anticipated by Milco et al. (U.S. 5,731,095).

Milco et al. disclose a composition having a carboxyl terminated hyperbranched polyester and an oxazoline polymer reactive therewith. See Example 5. Note that Example 2 produces the oxazoline by chemical modification of polymethyl methacrylate, a process which would convert pendant carboxyl groups as well as end unit carboxyl groups to oxazoline groups. The molecular weight of the polyol is 1500-8000 at column 5 line 1 which is used to produce the hyperbranched polymer and the amount of reagent with which the polyol reacts is comparable

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(within a factor of 2) the amount of polyol in Table 1. Therefore molecular weight would be expected to be more than 1000 but less than roughly about 16,000. As the oxazoline polymer would have at least a portion of terminal oxazoline groups, it can be said to be telechelic.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Mullis whose telephone number is (571) 272-1075. The examiner can normally be reached on Monday-Friday from 9:30 to 6:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck, can be reached on (571) 272-1078. The fax phone number for this Group is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-0994.

Jeffrey Mullis
Primary Examiner
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J. Mullis:cdc

October 8, 2004

A handwritten signature in black ink, appearing to be 'JM', is written over the printed name and title of Jeffrey Mullis.